In the Claims

The listing of claims shown below will replace all prior versions and listings of claims in the Application:

1. (Currently Amended) A vaso-occlusive device, comprising:

an elongate occlusive member defining a longitudinal axis and having an elongate axial lumen; and

an active element having a pre-deployment configuration carried entirely within the lumen with no portion of the pre-deployed active element located outside of the lumen, wherein the active element is configured to expand or contract to a deployed configuration without application of a mechanical force when placed in a body to thereby cause the occlusive member to substantially retain its shape when deployed in a body cavity.

2. (Original) The vaso-occlusive device of claim 1, wherein the active element is secured to the occlusive member.

3. (Original) The vaso-occlusive device of claim 2, wherein the active element is secured to the occlusive member by an adhesive.

4. (Original) The vaso-occlusive device of claim 2, the occlusive member having first and second ends, wherein the active element is secured at one or both ends of the occlusive member.

5. (Original) The vaso-occlusive device of claim 2, wherein the active element is secured at one or more locations along a length of the occlusive member.

6. (Original) The vaso-occlusive device of claim 1, wherein the active element comprises a hydrogel.

7. (Original) The vaso-occlusive device of claim 6, wherein the hydrogel comprises a homopolymer, copolymer, network polymer, or some combination or sub-combination thereof.

8. (Original) The vaso-occlusive device of claim 7, wherein the hydrogel comprises one or more of polyethylene glycol, polypropylene glycol, polyvinyl alcohol, polyvinylpyrrolidone, polyacrylates, polymethacrylates, polyacrylamides and polyehyloxazoline.

9. (Original) The vaso-occlusive device of claim 8, wherein the hydrogel further comprises one or more chemical cross-linking agents.

10. (Original) The vaso-occlusive device of claim 7, wherein the hydrogel comprises one or more of polysaccharides, mucopolysaccharides, polyaminoacids, carboxy alkyl celluloses, partially oxidized cellulose, hyaluronic acid, dextran, heparin

sulfate, chondroitin sulfate, heparin, agar, starch, alginate, fibronectin, gelatin, collagen, fibrin, pectins, albumin and ovalbumin.

11. (Original) The vaso-occlusive device of claim 10, wherein the hydrogel further comprises one or more chemical cross-linking agents.

12. (Original) The vaso-occlusive device of claim 7, wherein the hydrogel comprises one or more polyester of alpha-hydroxy acids including polyglycolic acid, poly-DL-lactic, poly-L-lactic acid, polylactones, polyanhydrides, polyorthoesters, polydioxanone, polycaprolactones, poly(delta-valerolactone), and poly(gamma-butyrolactone).

13. (Original) The vaso-occlusive device of claim 12, wherein the hydrogel further comprises one or more chemical cross-linking agents.

14. (Original) The vaso-occlusive device of claim 1, wherein the active element has an elongate shape.

15. (Original) The vaso-occlusive device of claim 1, wherein the occlusive member is a coil.

16. (Original) The vaso-occlusive device of claim 15, wherein the active element has a coil shape.

17. (Original) The vaso-occlusive device of claim 1, wherein the active element expands when placed in the body, and when in the body, may be expanded to have a cross-sectional dimension that is at least 100% of an internal diameter of the occlusive member.

18. (Previously Presented) The vaso-occlusive device of claim 16, wherein the active element, when in the body, may be expanded to have a cross-sectional dimension between 110% and 200% of the internal diameter of the occlusive member.

19. (Original) The vaso-occlusive device of claim 1, wherein the active element comprises a shape memory alloy.

20. (Original) The vaso-occlusive device of claim 1, wherein the active element comprises a shape memory polymer.

21. (Original) The vaso-occlusive device of claim 6, wherein the hydrogel is thermoresponsive.

22. (Original) The vaso-occlusive device of claim 6, wherein the hydrogel comprises a polyelectrolyte.

23. (Original) The vaso-occlusive device of claim 22, wherein the polyelectrolyte undergoes an ionic concentration induced shape change at or near the ionic concentration present in blood plasma.

24. (Original) The vaso-occlusive device of claim 1, wherein the active element is a fiber comprising protein.

25. (Original) The vaso-occlusive device of claim 24, wherein the fiber comprising protein undergoes a thermally induced phase transition or denaturation at or near body temperature.

26. (Original) The vaso-occlusive device of claim 24, wherein the fiber comprising protein undergoes a pH induced phase transition or denaturation at or near body pH.

27. (Previously Presented) The vaso-occlusive device of claim 1, wherein the active element is a polymer gel comprising a biocompatible polymer swollen with an aqueous ionic solution that will diffuse out of the gel, causing the gel to contract, upon contact with blood.

28. (Original) The vaso-occlusive device of claim 1, wherein the active element expands or contracts within about forty-eight hours after being placed in a body.

29. (Previously Presented) The vaso-occlusive device of claim 28, wherein the active element expands or contracts within about ten to twenty minutes after being placed in a body.

30. (Currently Amended) A vaso-occlusive device, comprising:

a helically wound coil comprising a plurality of adjacent loops, each loop having an open interior region, the coil defining [having] an axial lumen extending through the respective interior regions of the adjacent loops; and

a hydrogel member having a pre-deployment configuration carried entirely within the coil lumen with no portion of the pre-deployed hydrogel member located outside of the lumen, wherein the hydrogel member is configured to radially expand to a deployed configuration without application of a mechanical force after being placed in a body vasculature site to thereby cause the coil to substantially retain its shape when deployed in the body vasculature site.

31. Canceled.

32. (Currently Amended) A vaso-occlusive device, comprising:

a helically wound coil comprising a plurality of adjacent loops, each loop having an open interior region, the coil defining [having] an axial lumen extending through the respective interior regions of the adjacent loops; and

an active element having a pre-deployment configuration carried entirely within the lumen with no portion of the pre-deployed active element located outside of the lumen,

wherein the active element is configured to radially contract to a deployed configuration without application of a mechanical force after being placed in a body vasculature site to thereby cause the coil to substantially retain its shape when deployed in the body vasculature site.

33. (Original) The vaso-occlusive device of claim 32, wherein the active element comprises a shape memory alloy or polymer.

34. (Original) The vaso-occlusive device of claim 32, wherein the active element comprises a hydrogel.

35. (Original) The vaso-occlusive device of claim 34, wherein the hydrogel is one or both of a polyelectrolyte and thermoresponsive.

36. (Original) The vaso-occlusive device of claim 32, wherein the active element is a fiber comprising protein.

37. (Original) The vaso-occlusive device of claim 36, wherein the fiber comprising protein undergoes one or both of a thermally induced and pH induced phase transition or denaturation after being placed in the body.

38. (Currently Amended) The vaso-occlusive device of claim 132, wherein the active element is a polymer gel comprising a biocompatible polymer swollen with an

aqueous ionic solution that will diffuse out of the gel, causing the gel to contract, upon contact with blood.

39. Canceled.

40. (Currently Amended) A vaso-occlusive device, comprising:

an elongate occlusive member defining a longitudinal axis and having an elongate axial lumen; and

an active element having a pre-deployment configuration carried entirely within the lumen with no portion of the pre-deployed active element located outside of the lumen, wherein the active element is configured to expand or contract to a deployed configuration without application of a mechanical force when placed in a body to thereby stiffen the occlusive member.